Chemistry 222: General Chemistry, Winter 2018

Instructors	Office	Email	Office Hours
Bridgid Backus, Ph.D	MH-209	backusb@linnbenton.edu	MWF 10:00-10:50 am
Marci Moling	MH-210	molingm@linnbenton.edu	MW 11:00-11:50 am & TR 10:00-10:50 am
David Rogow	MH-212	rogowd@linnbenton.edu	T 1:00-2:50 pm & R 2:00-3:50 pm

Lectures:
D. Rogow MW 9:30-10:50 am and F 10:00-10:50 am in MH-208
B. Backus MW 11:00 am-12:20 pm and F 11:00-11:50 am in MH-208
M. Moling MW 2:00-3:20 pm and F 2:00-2:50 pm in MH-208

Laboratory:
Joe Bowles; bowlesj@linnbenton.edu Tuesdays 8:00 am, 11:00 am, or 2:00 pm, MH-214
Ulad Slabin; slabinu@linnbenton.edu Thursdays 8:00 am, 11:00 am, or 2:00 pm, MH-214

Science Help Desk:
The Science Help Desk is located on the first floor of Madrone Hall in the atrium area. The Help Desk is manned approximately 20 hours per week. Hours of the Help Desk are posted in the Help Desk area.

Outcomes:
- Solve scientific problems with quantitative methods regarding electromagnetic radiation, chemical bonding, phase changes, and colligative properties.
- Apply chemical principles related to quantum mechanics, atomic and molecular orbital theory, periodic trends, intermolecular attractions of pure substances and solutions, covalent bond theory, and organic chemistry.
- Work safely in a laboratory environment while observing and accurately recording measurements related to chemical phenomena.

Minimum Requirements:
College Algebra (MTH 111) and CH 221 with a C or better

Required Materials:
Chemistry: The Molecular Nature of Matter and Change, 7th Ed., Silberberg
Access Code for Sapling
Chemistry 222 Manual, Bridgid Backus
Carbonless Lab Notebook
Non-graphing/non-programmable Scientific Calculator

Optional Materials:
Lab coat
Personal Safety Goggles

Calculator Policy:
Students will be required to use a non-graphing/non-programmable scientific calculator for quizzes and/or exams. Department approved calculators are: TI 30xa, TI 30X IIs, Casio fx-260, or HP 10s. If a student does not wish to purchase one of these calculators the department will provide either a Casio fx-260 or TI 30xa for use on exams and/or quizzes.

Attendance and Classroom Decorum:
Class attendance is very important to the learning of chemistry. Students are expected to attend class regularly and on time. Entering the classroom late or leaving before the class ends is distracting to students and your instructor. **Cell phone use is NOT ALLOWED in the classroom.** The use of a laptop computer during lecture class is approved for CH 222 lecture material **only, i.e. lecture is not a time to do homework**.

Homework Problem Sets:
To succeed in chemistry, like learning a foreign language, you should study and practice every day. As material is covered you will find the problems are easier to work and not as time consuming as if they are attempted just before the due date. Keep in mind a typical science course takes **3-4 hrs of work per week outside of class for every credit hour**. Refer to the schedule for homework due dates and times. ***No late homework will be accepted.** Solutions to the homework sets will be available **after** the due date.

Quizzes:
There will be two types of quizzes given; multiple choice and problem solving. The multiple choice quizzes will occur daily. The problem solving quizzes will occur randomly once a week and will be due at the beginning of the following lecture. One lowest multiple choice quiz score and one lowest problem solving quiz score will be dropped. Quizzes will reflect material from the previous lecture(s) and any homework assigned. The quiz problems are good practice for exams and assist with keeping students up-to-date with material. **No late or make-up quizzes will be given.**

Exams:
All exams are given in class. Students who have conflicts with exam days due to other College functions, illness, or family emergencies must contact the instructor **prior** to the exam. Documentation of the College function, illness and/or family emergency must be provided to schedule a make-up exam.

Laboratory Reports:
Lab reports are due at the beginning of YOUR next lab session after the completion of the experiment (unless otherwise noted in the schedule). Late lab reports receive a 10% per day mark down. Your lowest lab report score will be dropped. You must receive at least 70% of the total lab points to pass the course regardless of passing the lecture. **No make-up labs will be given. Late lab reports will not be accepted (and will be counted as a zero) if they are turned in one week past the due date. Also, if you miss more than three labs or turn in fewer than five reports you will not receive a passing grade for the course. This is a lab class and to pass the course you must pass the laboratory component.**

Prelab Questions:
Be sure to check the syllabus for which lab is assigned for a particular week. Most lab experiments described in the manual have prelab questions. Many of these questions are designed to emulate the laboratory experiment that is about to be performed. By answering these questions BEFORE the lab period students are able to understand and perform the experiment more effectively. Prelab questions should be done on separate sheets of paper and are due **within the first 5 minutes** of the lab period. The prelab assignments are worth from one to five points of the lab report grade. **No late prelabs are accepted.**

Grading:

Exams (5 @ 50 pts. each)	250 pts.
Final Exam	150 pts.
Quizzes	~60 pts.
8 Sapling Homework Sets (10 pts. each)	80 pts.
8 Lab Reports (20 pts. each)	160 pts.
Total	~700 pts.

Course Grade:

90-100%	A
80-89%	B
70-79%	C
60-69%	D
0-59%	F

An incomplete grade (I) may be given at the discretion of the instructor. However, a student must have a passing grade at the time an incomplete is assigned.

Drop/Withdraw Policy:
If you are withdrawing from the class you must file a Schedule Change Form with Registration or use WebRunner. If you formally drop the class **by Monday of the second week of the term**, you will receive a tuition refund. If you withdraw after the Monday of the second week of instruction through the seventh week a **'W'** will show up on your transcript. No withdrawals are allowed after the end of the seventh week. An instructor may not assign a "W" grade.

If you received financial aid or veteran's benefits PLEASE talk with associates at the appropriate office to determine what effects on eligibility dropping a course will have. Don't jeopardize your eligibility!! You can contact the Financial Aid Office by calling (541) 917-4850 or by visiting the Financial Aid Office in Takena Hall.

If you stop attending the course without formally withdrawing you will continue to accumulate grades (zeroes for all assignments not turned in) and will receive the grade assigned by the instructor. You will also be held accountable for all charges on your account.

Academic Integrity:
"An instructor has the right to issue a grade of F for the course in which the instructor has reason to believe the student has cheated. A student has the right to appeal such action in accordance with the Students' Rights, Responsibilities and Conduct Policy." The preceding statement is Administrative Rule No. 7030-01.

Center for Accessibility Resources:
You should meet with your instructor during the first week of class if:
1. You have a documented disability and need accommodations.
2. Your instructor needs to know medical information about you.
3. You need special arrangements in the event of an emergency.
If you have documented your disability, remember that you must make your request for accommodations through the Center for Accessibility Resources Online Services web page every term in order to receive accommodations. If you believe you may need accommodations but are not yet registered with CFAR, please visit the CFAR website at www.linnbenton.edu/cfar for steps on how to apply for services or call 541-917- 4789.

LBCC Comprehensive Statement of Nondiscrimination:
LBCC prohibits unlawful discrimination based on race, color, religion, ethnicity, use of native language, national origin, sex, sexual orientation, gender, gender identity, marital status, disability, veteran status, age, or any other status protected under applicable federal, state, or local laws. For further information see Board Policy BP1015 in our Board Policies and Administrative Rules.

Homework Registration Instructions for Sapling:

Students need to go to the Sapling Learning home page and click **US Higher Ed** to log in or create an account. Students need to go to Sapling-Learning Registering for Courses for instructions on how to register for their specific course.

Sapling Learning offers a grace period on payment; for most courses, this is 14 days from the first day of the term. During sign up or throughout the term, if students have any technical problems or grading issues associated with Sapling, please go to create a support case in our Students Support Community. Their response times are generally under 24 hours.

The Sapling Learning support team is almost always faster and better able to resolve issues than your instructor.

Lecture and Lab Schedule:
****Note: This schedule of topics, homework due dates, and exam dates is subject to change.**

	Mon.	Wed.	Fri.	Laboratory	Homework
Week 1 1/8-1/12	7.2-7.3	7.3-7.4	**Exam 1 (Ch 7)**	Safety, Lab Format, & Atomic Structure	*Ch 7 Sapling Due Wed (1/10) at 10:00 pm*
Week 2 1/15-1/19	**Holiday No Class**	8.1-8.3	8.3	Excel Graphing w/ Computers & Atomic Structure Write-up **Report due at end of lab**	
Week 3 1/22-1/26	8.4	9.1-9.3	**Exam 2 (Ch 8)**	Qualitative Analysis 1	*Ch 8 Sapling Due Wed (1/24) at 10:00 pm*
Week 4 1/29-2/2	9.3-9.5	10.2-10.3	11.1-11.2	Lecture 10.1 and Lewis-Dot Structures	*Ch 9 Sapling Due Wed (1/31) at 10:00 pm*
Week 5 2/5-2/9	11.3 & MO worksheet	11.3, 12.1-12.2	**Exam 3 (Ch 9, 10, & 11)**	Molecular Models	*Ch 10 Sapling Due Mon (2/5) at 10:00 pm Ch 11 Sapling Due Thurs (2/8) At 10:00 pm*
Week 6 2/12-2/16	12.2-12.3	12.3-12.5	13.1	Molecular Weight by Vapor Density	*Ch 12 Sapling Due Fri (2/16) at 10:00 pm*
Week 7 2/19-2/23	**Holiday No Class**	**Exam 4 (Ch 12)**	13.2-13.3	Enthalpy of Vaporization of H_2O	
Week 8 2/26-3/2	13.4-13.5	13.5-13.6	13.6	Freezing Point Depression	
Week 9 3/5-3/9	15.1-15.2	**Exam 5 (Ch 13)**	15.2	Organic Chemical Models	*Ch 13 Sapling Due Mon (3/5) at 10:00 pm*
Week 10 3/12-3/16	15.2	15.3-15.4	15.4	Geometric Isomers	*Ch 15 Sapling Due Fri (3/16) at 10:00 pm*
Week 11 3/19-3/23 **Final Exams**	**10-11:50 am (Backus)**	**10-11:50 am (Rogow) 3-4:50 pm (Moling)**			

NOTE: The material from Chapter 15 will be proportionately represented on the final exam. Although a 3x5 note card will be allowed for student use on the **final exam**, no notes from Chapter 15 (Organic Chemistry) will be permitted on the card. The card will be signed and turned in with your final exam.

Instructor Lecture Schedule:

	Mon.	Wed.	Fri.	Laboratory	Homework
Week 1 1/8-1/12	7.2-7.3 **PS Quiz**	7.3-7.4 **MC Quiz**	**Exam 1 (Ch 7)**	Safety, Lab Format, & Atomic Structure	*Ch 7 Sapling Due Wed (1/10) at 10:00 pm*
Week 2 1/15-1/19	**Holiday No Class**	8.1-8.3 **MC Quiz**	8.3 **MC Quiz PS Quiz**	Excel Graphing w/ Computers & Atomic Structure Write-up **Report due at end of lab**	
Week 3 1/22-1/26	8.4 **MC Quiz**	9.1-9.3 **MC Quiz PS Quiz**	**Exam 2 (Ch 8)**	Qualitative Analysis 1	*Ch 8 Sapling Due Wed (1/24) at 10:00 pm*
Week 4 1/29-2/2	9.3-9.5 **MC Quiz**	10.2-10.3 **MC Quiz PS Quiz**	11.1-11.2 **MC Quiz**	Lecture 10.1 and Lewis-Dot Structures	*Ch 9 Sapling Due Wed (1/31) at 10:00 pm*
Week 5 2/5-2/9	11.3 & MO worksheet **MC Quiz PS Quiz**	11.3, 12.1-12.2 **MC Quiz**	**Exam 3 (Ch 9, 10, & 11)**	Molecular Models	*Ch 10 Sapling Due Mon (2/5) at 10:00 pm Ch 11 Sapling Due Thurs (2/8) At 10:00 pm*
Week 6 2/12-2/16	12.2-12.3 **MC Quiz**	12.3-12.5 **MC Quiz PS Quiz**	13.1 **MC Quiz**	Molecular Weight by Vapor Density	*Ch 12 Sapling Due Fri (2/16) at 10:00 pm*
Week 7 2/19-2/23	**Holiday No Class**	**Exam 4 (Ch 12)**	13.2-13.3 **MC Quiz PS Quiz**	Enthalpy of Vaporization of H_2O	
Week 8 2/26-3/2	13.4-13.5 **MC Quiz**	13.5-13.6 **MC Quiz**	13.6 **MC Quiz PS Quiz**	Freezing Point Depression	
Week 9 3/5-3/9	15.1-15.2 **MC Quiz**	**Exam 5 (Ch 13)**	15.2 **MC Quiz**	Organic Chemical Models	*Ch 13 Sapling Due Mon (3/5) at 10:00 pm*
Week 10 3/12-3/16	15.2 **MC Quiz PS Quiz**	15.3-15.4 **MC Quiz**	15.4 **MC Quiz**	Geometric Isomers	*Ch 15 Sapling Due Fri (3/16) at 10:00 pm*
Week 11 3/19-3/23 **Final Exams**	**10-11:50 am (Backus)**	**10-11:50 am (Rogow) 3-4:50 pm (Moling)**			